

AMSAT News Service Weekly Bulletins

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AMSAT NEWS SERVICE

ANS-358

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:

ans-editor@amsat.org

In this edition:

- * Multiple Amateur Satellites Deployed From Shuttle
- * GO-32 PBBS Operational
- * GeneSat-1 Continues Operations
- * ARISS Status - 18 December 2006

SB SAT @ AMSAT \$ANS-358.01

Multiple Amateur Satellites Deployed From Shuttle

AMSAT News Service Bulletin 358.01

From AMSAT HQ SILVER SPRING, MD.

December 24, 2006

To All RADIO AMATEURS

BID: \$ANS-358.01

ANDE, RAFT and NMARS were deployed from the Space Shuttle on 21 December 2006.

RAFT and NMARS have a very high spin rate. NMARS is spinning at at least 60 RPM and RAFT at maybe half that. This will make getting a complete 1 second packet difficult due to fading on linear antennas.

The Naval Research Laboratory science mission of ANDE is to measure the density of the upper atmosphere by precise tracking of the orbit decay by the Maui Laser Ranging Tracking Station. The Comm system provides important telemetry on the attitude and temperature of the spacecraft. RAFT carries a 216.98 MHz receiver/transmitter to demonstrate self-location techniques when it flies through the Space Surveillance Network radar fence across the southern USA. When this experiment is activated, users will hear a 1 second ping when it flies through the fence.

ANDE and RAFT also carry packet radio communications systems and join with other US Naval Academy APRS digipeating satellites such as PCSAT-1 and PCSAT2. ANDE and RAFT will respond to the path alias of APRSAT and ARISS. This is so that users do not have to reconfigure their path between satellites or between their ISS groundstation. The following frequencies are used by these two spacecraft:

- * ANDE Side A: 145.825 Digipeater up/downlink 1200 baud packet
- * ANDE Side B: 145.825 downlink (backup to side A only)
- * RAFT System: 145.825 Digipeater up/downlink 1200 baud packet
- * RAFT PSK-31: 28.120 HF PSK-31 uplink -downlink on 145.825

Much more information about these satellites is available on the ANDE, RAFT, NMARS, & FCAL Operations web site.

<http://www.ew.usna.edu/~bruninga/ande-raft-ops.html>

[ANS thanks Bob, WB4APR, for the above information]

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SB SAT @ AMSAT \$ANS-358.02
G0-32 PBBS Operational

AMSAT News Service Bulletin 358.02
From AMSAT HQ SILVER SPRING, MD.
December 24, 2006
To All RADIO AMATEURS
BID: \$ANS-358.02

Techsat1b/G0-32 PBBS services had been suspended due to a special test and to maintainance needs on 25 November 2006. With the maintainance and testing now complete, G0-32 returned to operations on Thursday morning 21 December 2006.

[ANS thanks Roni, 4Z7DFC, for the above information]

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SB SAT @ AMSAT \$ANS-358.03
GeneSat-1 Continues Operations

AMSAT News Service Bulletin 358.03
From AMSAT HQ SILVER SPRING, MD.
December 24, 2006
To All RADIO AMATEURS
BID: \$ANS-358.03

The GeneSat-1 mission is proceeding very well. Biology data shows definite growth. Payload temperature control is doing a good job of holding the median payload temperature close to 34 deg C (the latest data shows median payload temp of 33.42). The 2.4 GHz communications link is functional and supporting the required level of procedural execution by the ops team. So far nearly all commanding has been done in the very early morning hours, over time the Ops Team will also be interested in assessing how time-varying (and most likely directional) 2.4 GHz noise affects the command link (e.g. how 2.4 GHz wireless noise increases during normal working hours)

The 70cm beacon downlink is excellent although the frequency has shifted down to about 437.0645 MHz. So far over 7100 beacon packets have been submitted by Amateurs world-wide.

The GeneSat team is also happy to report the winner of the GeneSat First Contact Prize for the amateur radio community: Ralph Wallio, W1LZRPK. Ralph successfully decoded 5 beacon packets at approximately 13:44:28 UTC on 16 December 2006, which was about 85 minutes after GeneSat deployed from the PPOD. Ralph is located in Iowa.

Additional information about the GeneSat-1's on-going mission is availble at <http://www.genesat1.org/>

[ANS thanks GeneSat1 Operations for the above information]

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SB SAT @ AMSAT \$ANS-358.04
ARISS Status - 18 December 2006

AMSAT News Service Bulletin 358.04

From AMSAT HQ SILVER SPRING, MD.
December 24, 2006
To All RADIO AMATEURS
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1. Swedish School Contact Successful

On Sunday, December 17, students attending Thunmanskolan in Knivsta, Sweden spoke with Swedish astronaut Christer Fuglesang, KE5CGR/SA0AFS, on board the ISS via the telebridge station VK4KHZ in Australia. Fuglesang was able to answer 13 questions posed to him by thirteen students. Audio was fed to the Echolink AMSAT (101 377) and JK1ZRW (277 208) servers and to IRLP Discovery Reflector 9010. Fifty connections from 12 countries were made to Echolink, including 5 simplex and 3 repeater nodes. Eight stations connected to IRLP from Canada, U.S.A, and Sweden; 25 listened to the audio as it was streamed on the Discovery website. The audio was also webcast courtesy of Verizon Conferencing.

2. Upcoming School Contact

An Amateur Radio on the International Space Station (ARISS) contact is planned for the Kashiwabara Community Center in Sayama, Japan on Wednesday, December 27, at 12:22 UTC. Kashiwabara Community Center will plan and support this children's event with the two area schools: Kashiwabara Elementary school and Kashiwabara Junior High school. The children will be taught about the ISS, space and amateur radio, and will take a field trip to visit the Japanese Aerospace Exploration Agency (JAXA). Members of JAXA will also be invited to the event.

3. Training Status

On Thursday, December 14, astronaut Tim Kopra and future space participant Charles Simonyi took and passed their amateur radio license exams. In addition, Simonyi received training on the Kenwood radio and Amateur Radio on the ISS school operations.

4. ARRL QST Articles on ARISS

The American Radio Relay League (ARRL) ran several stories covering Amateur Radio on the International Space Station (ARISS) related activities in the January issue of QST. A bullet item in the monthly list of touted Amateur Radio accomplishments described the discussion about SuitSat-2 by the ARISS Team at the ARISS Annual Meeting in San Francisco (page 12).

A letter to the editor was run from a person who upon learning about ARISS, decided he wanted to become a ham radio operator in order to talk to astronauts. He succeeded in studying for and passing his ham radio exams, and was very lucky (and excited!) to speak with Bill McArthur. His letter was written to thank Bill for his time spent doing outreach to the public while chatting via ham radio (p. 24).

A story was run about AMSAT's Annual Symposium describing McArthur's excellent talk at the symposium banquet. The story included his photo (p. 75).

5. Thomas Reiter Active on Voice

On Monday, December 11, Thomas Reiter was active on the Amateur Radio on the International Space Station (ARISS) radio. Reiter made several contacts with stations in Norway, the Netherlands and the U.K.

[ANS thanks Carol, KB3LKI for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

73 & Happy Holidays,
This week's ANS Editor,
Lee McLamb, KU40S